

TIME TABLE

Wednesday 15 November

8:45 - Conference introduction

Session 1 - 9:00-12:30 - Developing and using new probes and labeling strategies

Chairs : Boris Vauzeilles, Florence Mahuteau Betzer

Designing brighter dyes for advanced fluorescence microscopy

Luke Lavis (Ashburn)

Metal complexes bio-imaging using a range of microspectroscopies —IR, AFM-IR, fluorescence and X-fluorescence

Clotilde Policar (Paris)

A Long-lived Triplet State is the Entrance Gateway to Oxidative Photochemistry in Green Fluorescent Proteins

Martin Byrdin (Grenoble)

11:00 - coffee-break

Chelating azides and mesionics, new tools for imaging and labeling applications

Frédéric Taran (Saclay)

Lanthanide complexes as prototypes for ORM-optical imaging of an enzyme activity

Philippe Durand (Gif-sur-Yvette)

12:30 - lunch & poster session

Session 2 - 14:00-18:30 - Advanced biosensors and contrasts for analytical cell imaging

Chairs : Fabienne Mérola, Oliver Nüsse

Paris-Saclay Chemistry Dept

Jean-Pierre Mahy, Director

Days of future past : Design and potential of genetically encoded biosensors for biomedical research

Franck Riquet (Ghent)

Fluorescent peptide biosensors for probing kinase activities : new tools for cancer diagnostics and drug discovery

May Morris (Montpellier)

Fluorescent proteins as probes to analyse protein complexes: from quantitative live cell imaging to structural model

Marie Erard (Orsay)

16:30 - coffee-break

Microtubules as platforms for visualizing and analyzing protein interactions in cells

David Pastre (Evry)

IR nanospectroscopy as a label-free imaging technique to characterize new antibiotics carriers

Jérémie Mathurin (Orsay)

STEM-cathodoluminescence, a promising novel approach for bioimaging

Marta De Frutos (Orsay)

Thursday 16 November

Session 3 - 9:00-13:00 - Improving spatial and temporal analyses of cellular functions

Chairs : Sandrine Lévêque-Fort, Laurent Combettes

Sub-diffraction imaging of biosensors using "smart" labels

Peter Dedecker (Leuven)

Combining complementary localization modalities for 3D imaging of biological samples

Clément Cabriel (Orsay)

Experimental phasing approaches of protein microcrystals structure determination inside the living cell
Pierre Montaville (Saint-Aubin)

11:00 - coffee-break

The promises and challenges of high-density single molecule imaging : application to nanoscale organization of Rac1 signalling
Maxime Dahan (Paris)

Clustering of the Neurotrophin Receptor TrkB in the Membranes of SH-SY5Y Cells Detected by Super-resolution STED Microscopy
Angelina Angelova (Châtenay-Malabry)

Challenges in high spatial and temporal resolution imaging to study genome organization and function from bacteria to human cells
Karine Dubrana (Fontenay-aux-Roses)

13:00 - lunch & poster session

Session 4 - 14:30-18:30 - Advanced methods for deep 3D ex vivo/in vivo imaging

Chairs : Cedric Bouzigues, Sylvia Bruneau

The Strategic Research Initiative BIOPROBE at Paris Saclay
Fabienne Mérola

Multidimensional and multi-level imaging of tissue disease: towards the 3D digital histology
Francesco Pavone (Florence)

Probing cellular metabolism in living tissues by Fluorescence Lifetime Microscopy of intrinsic biomarkers
Chiara Stringari (Palaiseau)

16:30 - coffee-break

Fast 3D-Imaging of Neuronal Activity in Cortical Columns at Single Cell Resolution
Walther Akemann (Paris)

Towards in-vivo acousto-optic imaging of biological tissues
Maimouna Bocoum (Paris)

In vivo Reactive Oxygen Species imaging for complex pathology monitoring
Antigoni Alexandrou (Palaiseau)

Friday 17 November

Session 5 - 9:00-12:30 - Histochemical analyses of cells and tissues

Chairs : Bertrand Cinquin, Larbi Amazit

Catch me if you CLEM: Imaging Single Tumor Cells at the Blood-Brain-Barrier using Multimodal Correlative Microscopy
Matthia Karreman (Heidelberg)

Biom mineralisation and pathological calcifications :Beauty and the Beast
Dominique Bazin (Paris)

Infrared and Raman spectroscopy for the analysis of J774 macrophages
Sana Tfaili (Châtenay-Malabry)

11:00 - coffee-break

Last developments of TOF-SIMS for high spatial resolution molecular imaging and 3D-profiling
David Touboul (Gif-sur-Yvette)

3D high resolution imaging by X-ray Phase Contrast Tomography to study theranostic nanoparticles distribution in mice organs
Elena Longo (Palaiseau)

Closing remarks